TRANSPARENCY: KNOWLEDGE-BASED MEASURES FOR SMALL BUSINESS & ENTREPRENEURS

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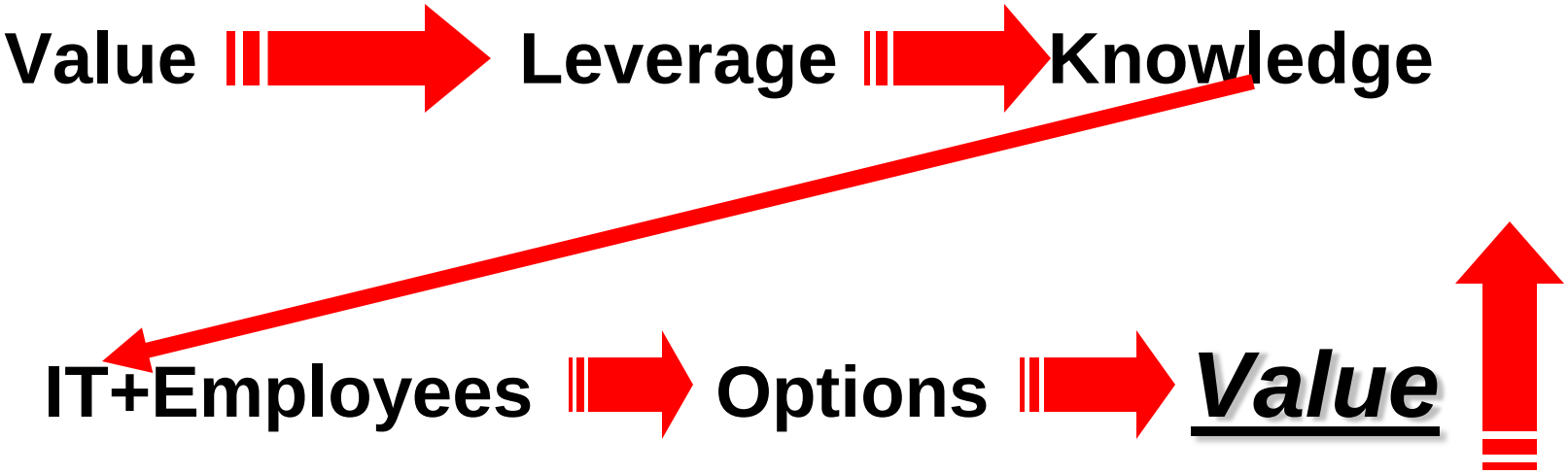
Leverage

"Value" and competitive advantages for small businesses come from leveraging knowledge bundled in employees and information technology IC based options/capabilities



Background

- Need to report performance of intellectual capital assets by entrepreneur's small firms: they may have no real assets and no financial history
- Auditors, bankers, investment bankers, regulatory agencies, and insurance companies require valuation of intangible assets to assess viability of an organization (Basel II Accord: Operational Risk)
- These difficulties result in perception of higher risk and uncertainty and reduced access to capital

The Problem

- Lack of transparency: capital flows to transparency
- Small firms' reporting practices do not include the intangible assets that contribute to cash flow
- These IC assets are the engine of growth and should be included in the firm's valuation (represent 20-60% firm's market valuation)
- Very difficult to evaluate likelihood of success of firm's projected discounted (future) cash flow
- Investors hate uncertainty but not risk

The Investment Community Needs Transparency

- Greater transparency of the performance of IC assets
- Need common way to monetize historical IC asset performance: i.e., comparability
- Need to monitor monetized performance of IC assets over time to reduce uncertainty, better understand volatility-risk
- To obtain capital, adoption of global performance measures for intangible assets must converge with reporting standards of the dominant capital market of the world

Some Limiting Assumptions

- The corporation is the atomic unit of analysis: economics doesn't go inside the atom
- Finance is focused on prediction: without powerful explanatory theory, prediction is problematic
- Equilibrium: There is no equilibrium, the subatomic units are in constant motion
- Start-ups: No financial history

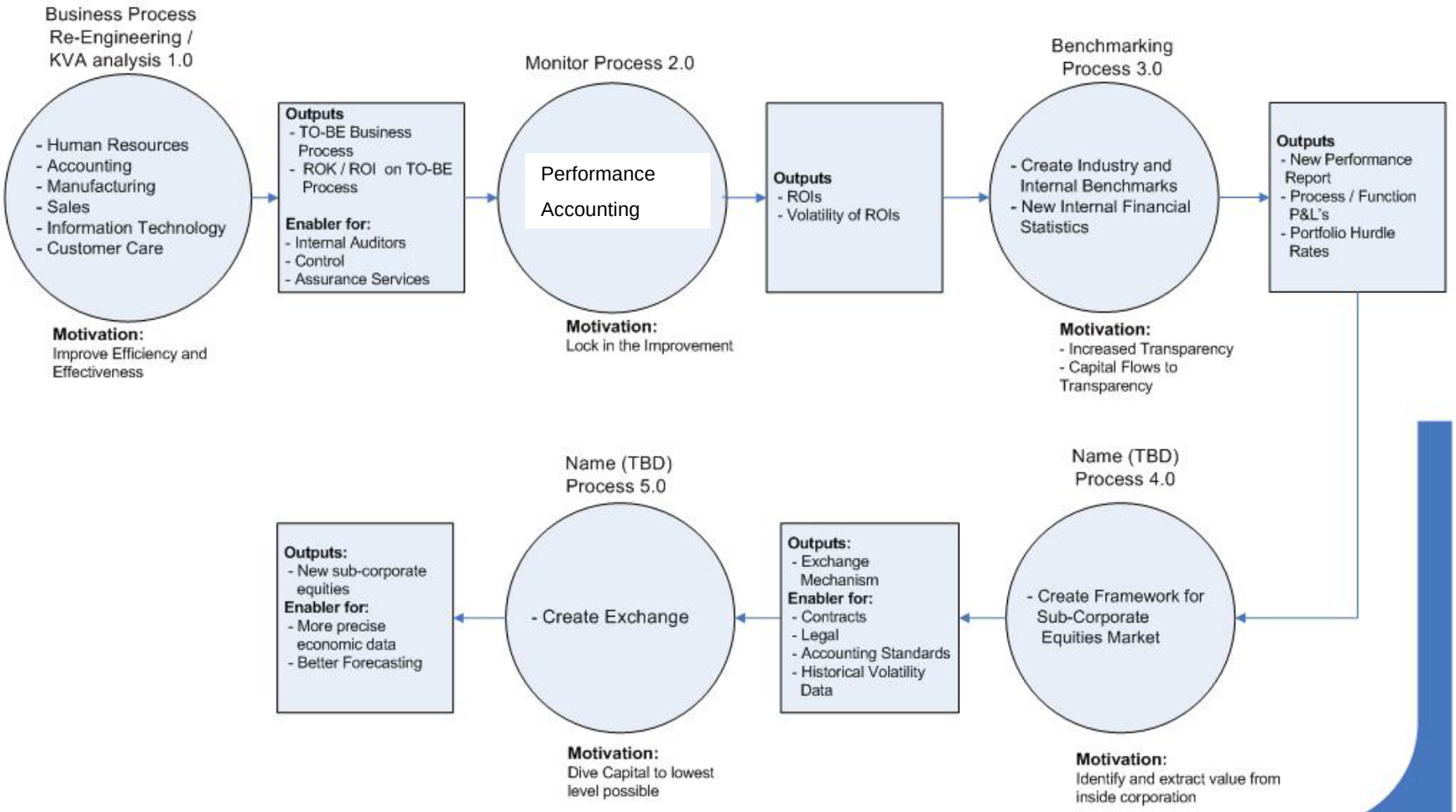
Requirements for Transparency

- Must understand the “body” by looking inside the “body”: Input-output models don’t provide transparency
- Must be able to monitor changes in performance inside the corporation
- Must have a common (non-semantic) measure of internal performance
- Internal performance must be linked directly to external performance

Getting to Transparency

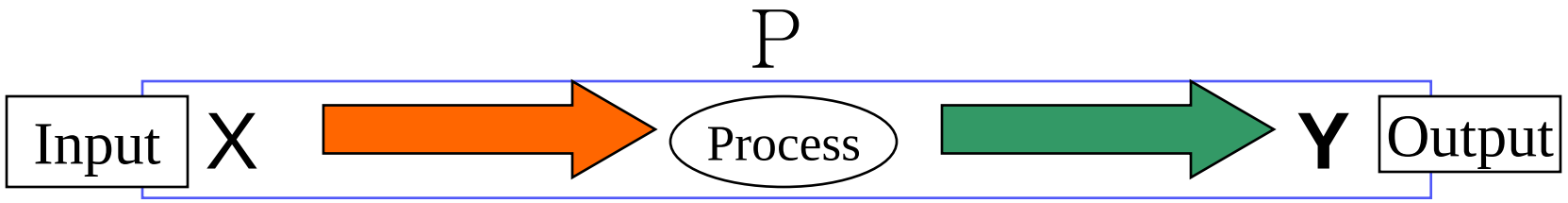
(Analysts = New Gnostics for Start-ups)

owledge Value Added



Fundamental assumptions of KVA

- Underlying Model: Change, Knowledge, and Value are Proportionate



P(X) = Y

Fundamental assumptions:

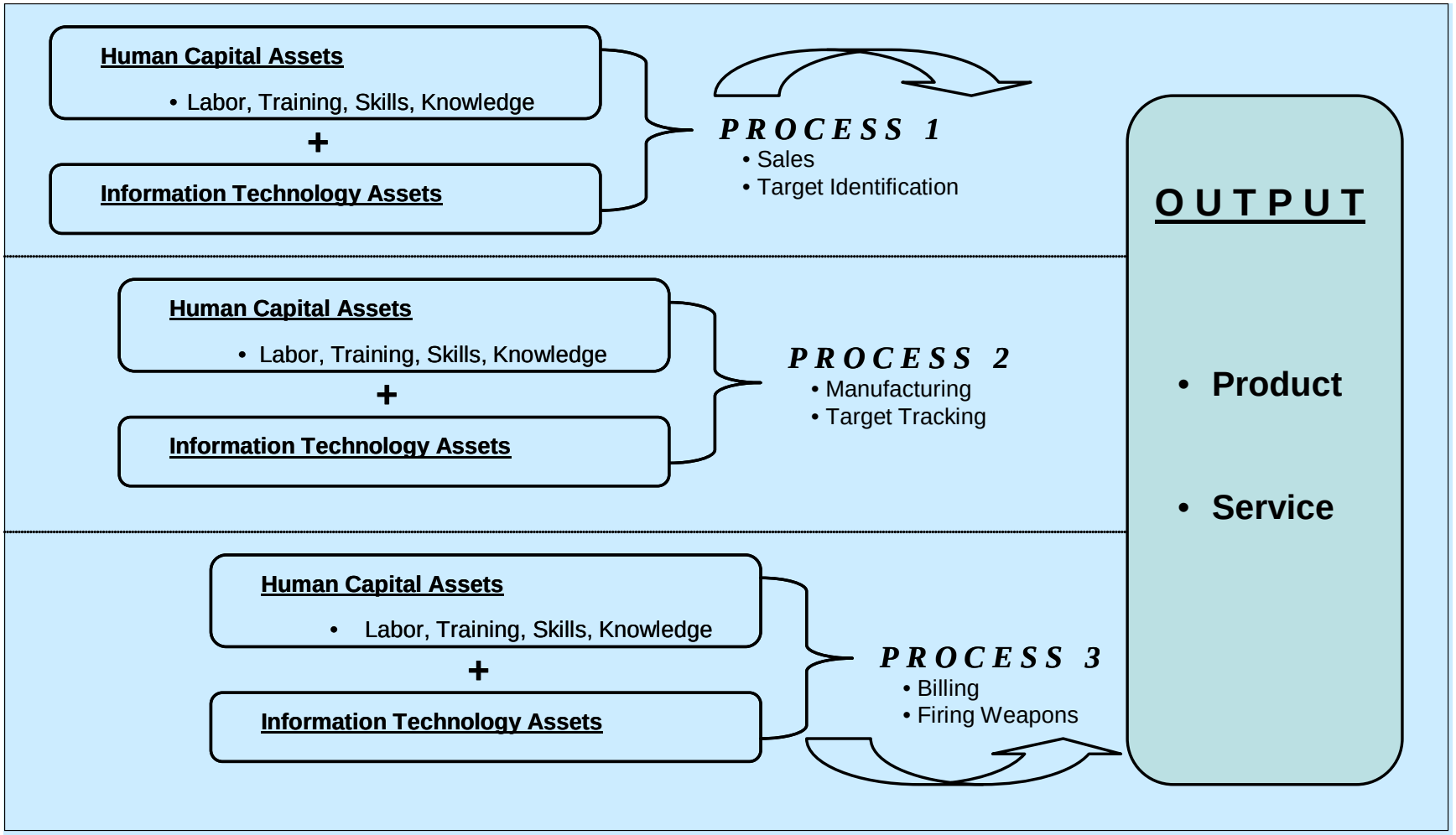
1. If X = Y no value has been added.
2. “value” ∝ “change”
3. “change” can be measured by the amount of knowledge required to make the change.

So “value”∝ “change” ∝“amount of knowledge required to make the change”

(Principle of replication)

Intellectual Capital for Communities in the Knowledge Economy

KVA: Measuring Output in Common Units



What is Return on Knowledge (ROK)?

- Return on Knowledge is a new organizational performance ratio
  - Numerator = amount of K required to reproduce process outputs
    - How is this calculated? What does the resulting number represent?
  - Denominator = cost to use K to produce output
    - How is this calculated? What does the resulting number represent?

The Comparability Problem: KVA

- Performance metrics for productive assets use many different units of measure for benefits.
- Common denominator -- no common numerator
- Accounting monetizes **cost** but **benefits** at the subcorporate level have not been monetized in an objective way
  - It is hard to have a conversation about "**value**" when value is not monetized (i.e., measured in common units)
  - It is much easier to have a conversation about cost because cost is usually monetized

The Value Problem: KVA Solution

- Measures outputs of organizations in common units
- Marketplace values these outputs: Revenue
- For Start-ups and Non-profits: Market price establishes **comparable** price per unit
- KVA allocates revenue to productive assets
- Enabling leadership to focus on “value”

Intellectual Capital for Communities in the Knowledge Economy

How to Use KVA

1. Model the process (all inputs and outputs)
2. Obtain sub-process cost and common units of output (outputs=activities=learning time = knowledge)
3. Market comparable revenue for output when actual revenue not allocated at corporate level
4. Estimate revenue and cost allocation among all processes
5. Generate return, productivity (e.g., ROK and return on investment-ROI) estimates
6. Generate a report for decision makers

Case Example: SBC (AT&T) Telecom

- SBC (AT&T) – Start-up, Tier One Subsidiary of SBC
  - Result = purchase of Siebel CRM for Sales (30% reduction cost of sales and 30% increase in sale revenue)

ROK Estimates with IT

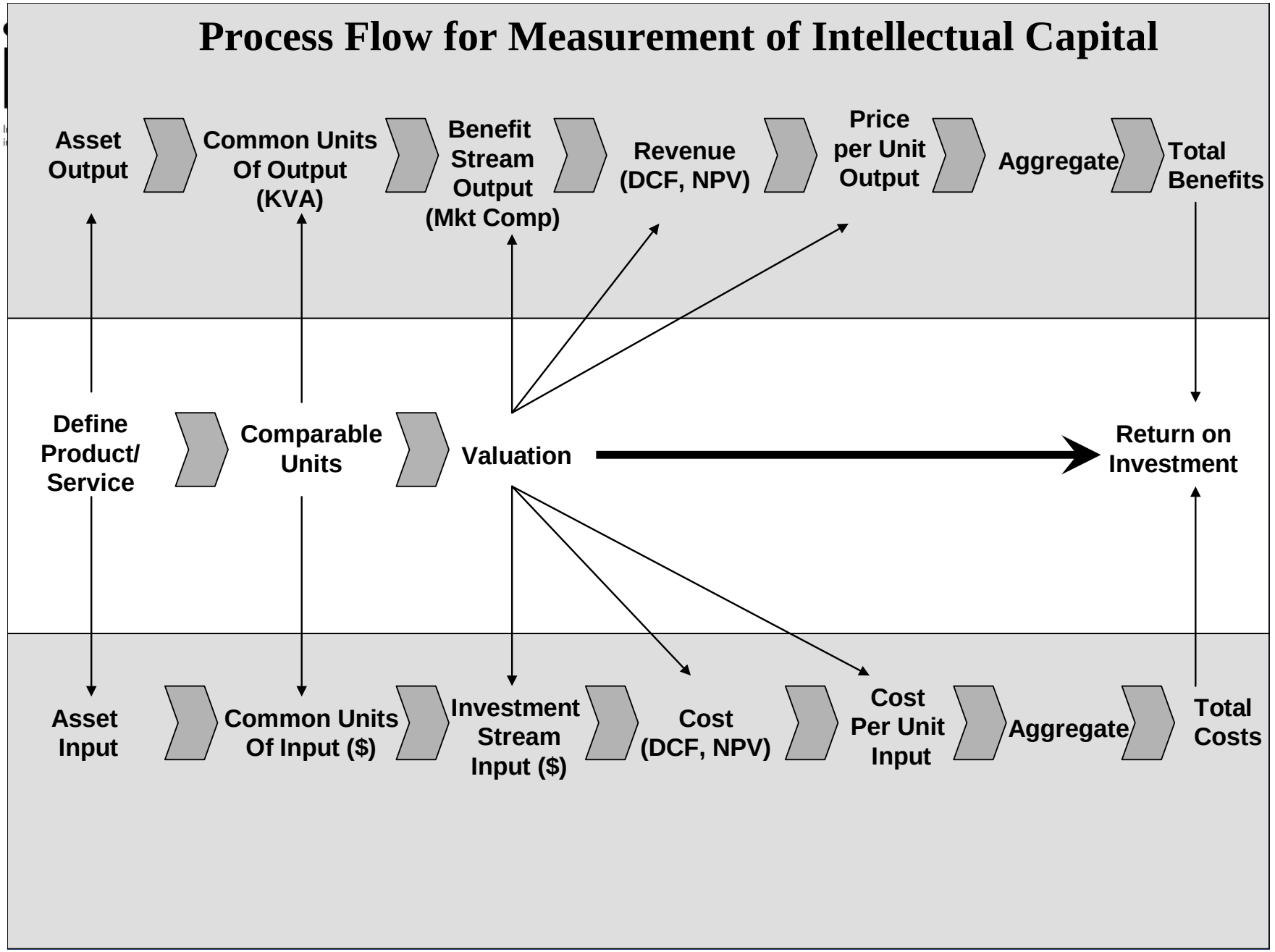
Estimates with IT	Rank Order	Relative LT (100 months)	Actual Average Training Period in years	HC	Total learning time (Rel.LT*HC +Auto.)	% IT.	IT Cost	Annual Expenses	Annual Revenue	ROK
Marketing	3	6	2	28	218	30%	6,000,000	2,700,000	3,800,672	141%
Ordering	8	12	4	25	525	75%	10,000,000	2,875,000	9,136,230	318%
Provisioning	9	36	52	120	6,912	60%	35,837,209	12,583,721	120,285,000	956%
Maintenance	7	20	29	120	3,840	60%	10,162,791	10,016,279	66,825,000	667%
Billing	2	7	1	15	189	80%	29,000,000	4,025,000	3,289,043	82%
Customer Care	5	11	5	37	692	70%	20,000,000	4,775,000	12,040,682	252%
Corporate	4	4	4	75	480	60%	8,000,000	6,425,000	8,353,125	130%
Sales	6	4	10	240	1,632	70%	20,000,000	20,000,000	28,400,625	142%
TOTALS		**100**	**107**	**660**	**14,488**		**139,000,000**	**63,400,000**	**155,925,000**	**246%**
	Correlation Rel.&Act		94%							

- First three columns estimates of amount of K
- Number of employees is weighting factor for total K – LT (in the case of a start up company with no actual sales)
- Percentage automation is proportionate to K contained in IS
- Annual expense is employee costs + amortized cost of IS
- Revenue = Percentage of Total Revenue allocated to process based on amount of K contained in process
- ROK = Revenue divided by Expense

Process of Conducting the Knowledge Audit

- Collecting the data in SBC Telecom Case:
  - Identified process SME in core areas
  - Through interview process, generated ordinal ranking, relative and actual LT estimates
- Performed matched correlation for actual-relative-ordinal ranking LT estimates (range from .78 to .95)

Process Flow for Measurement of Intellectual Capital



Learning (L) – Knowledge (K) – Value (V) Spiral